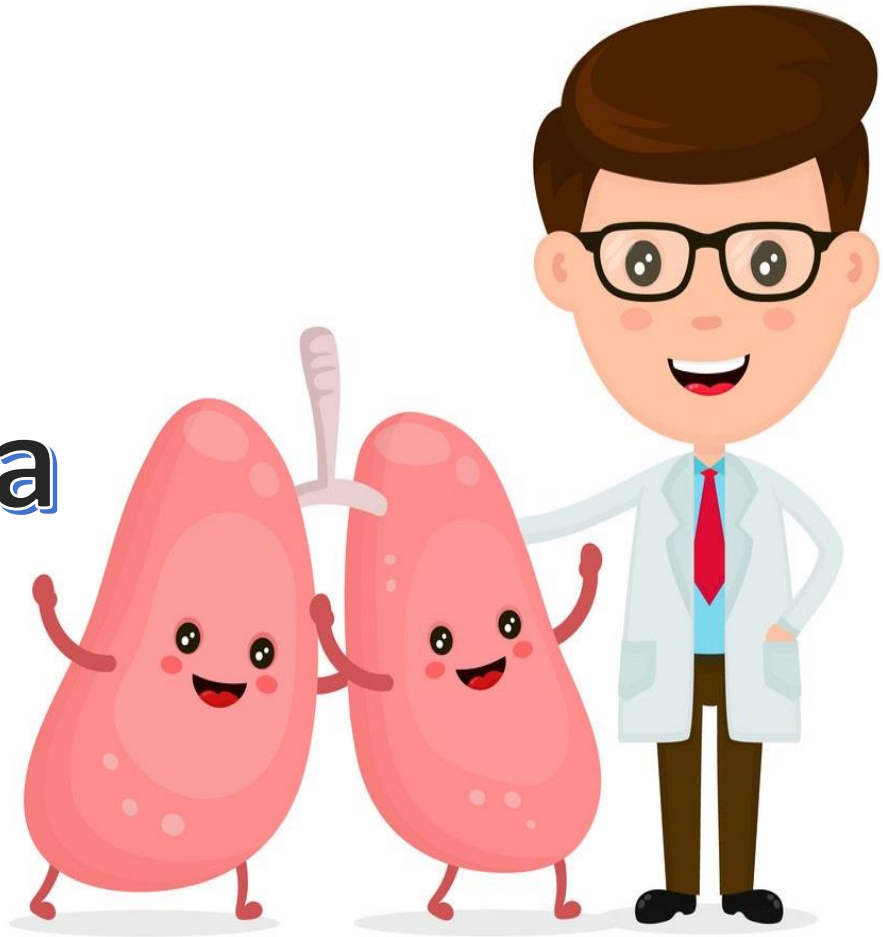
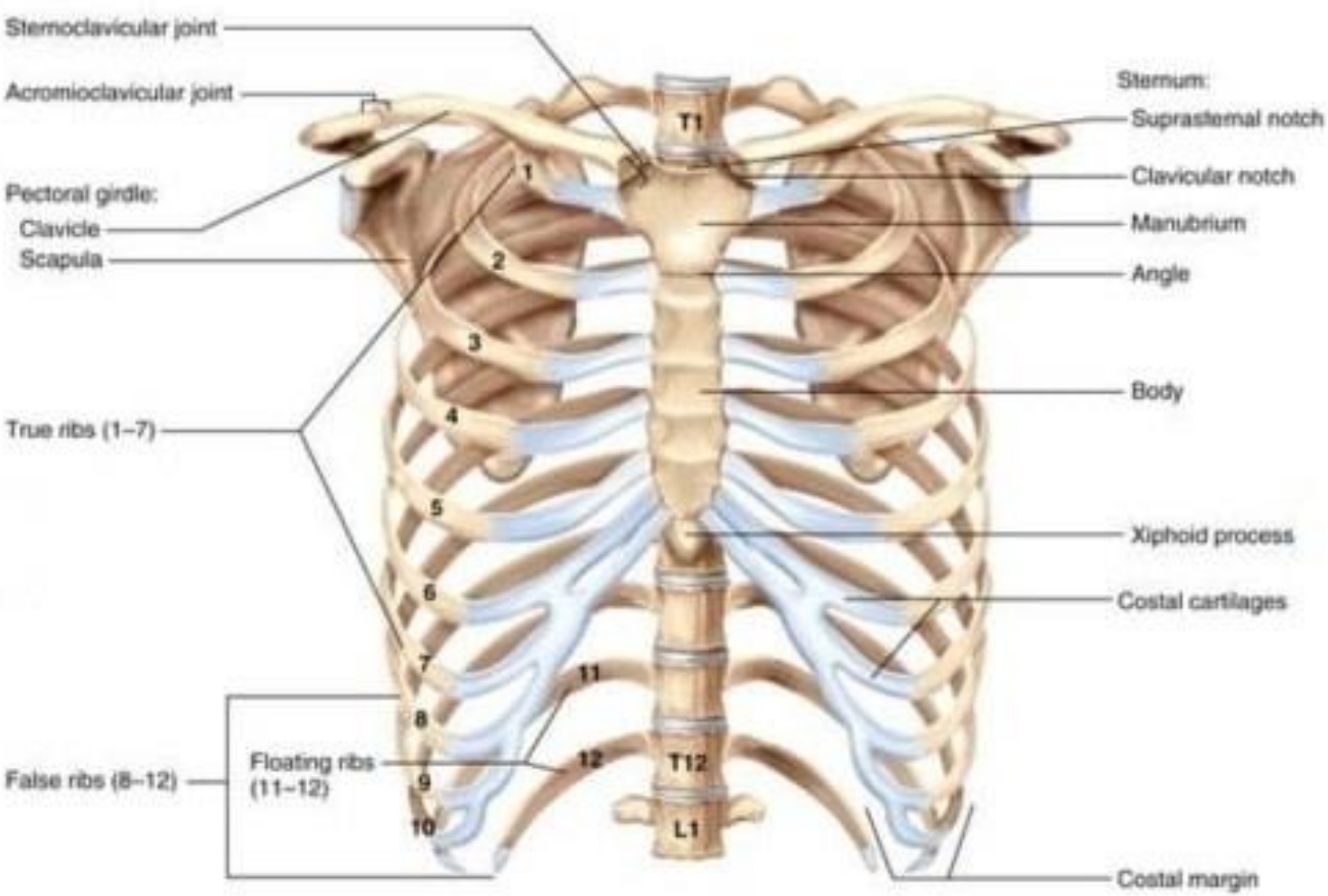
Surface Anatomy Of The Lung And Pleura



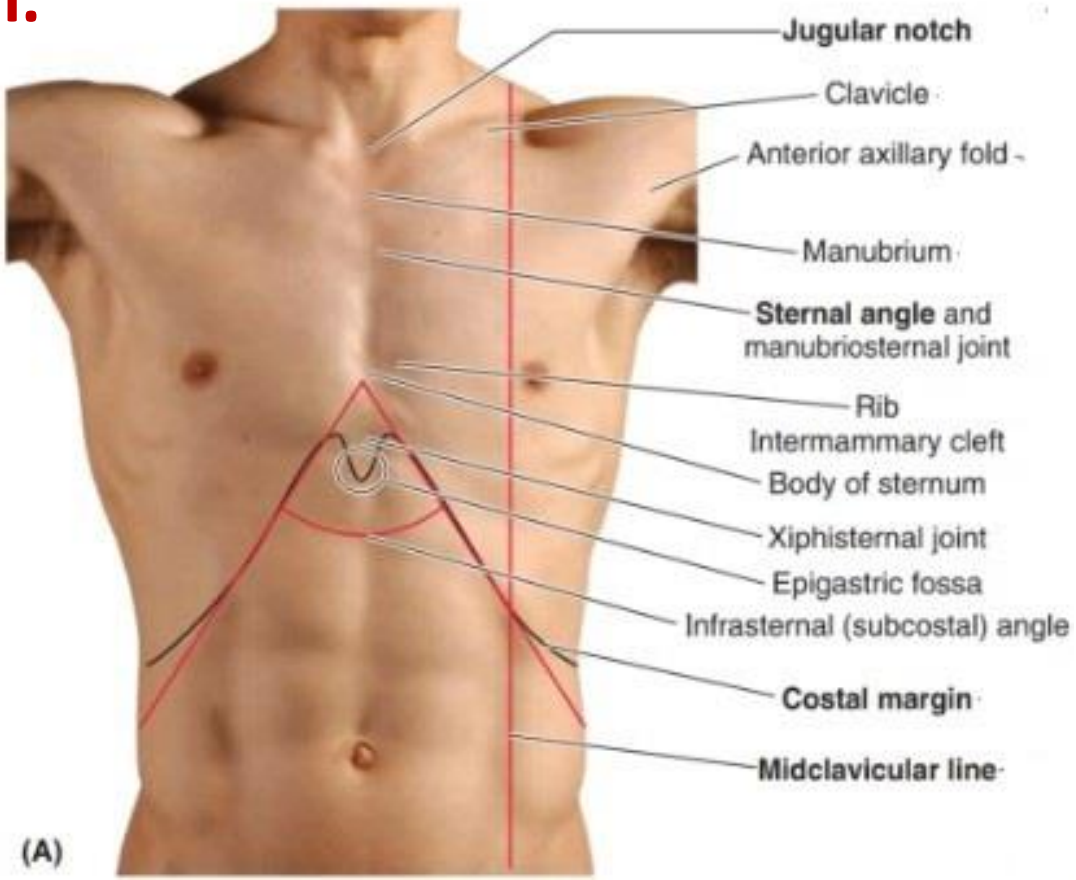
Class 3

Thoracic Cage

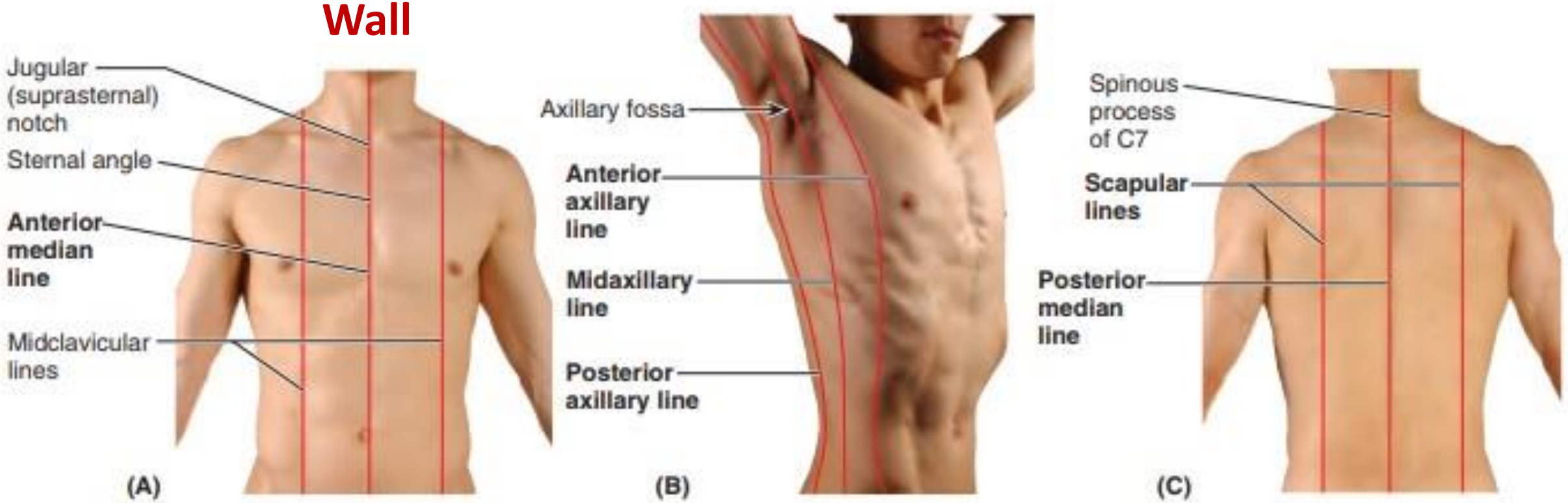


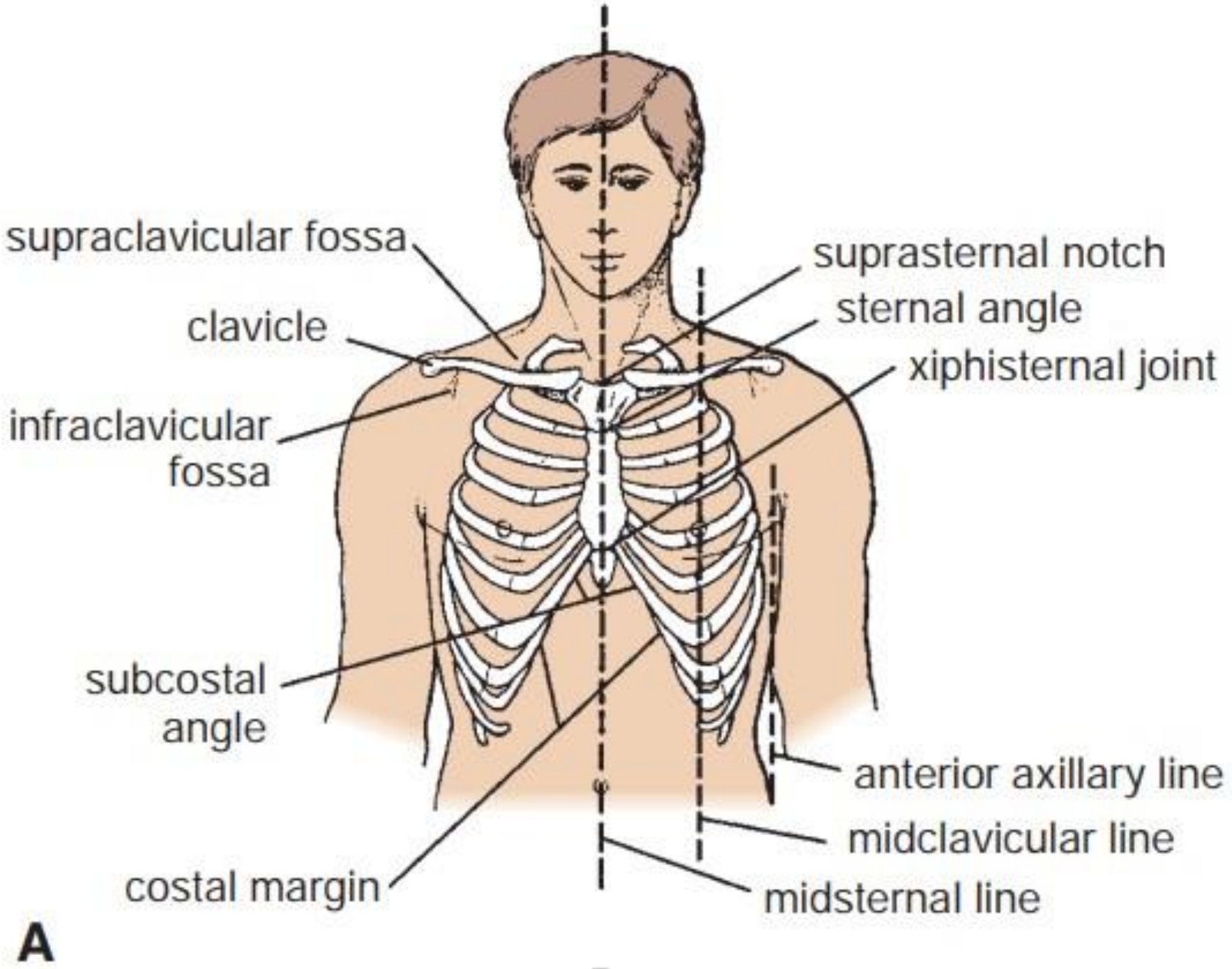
Lines Of Orientation:-

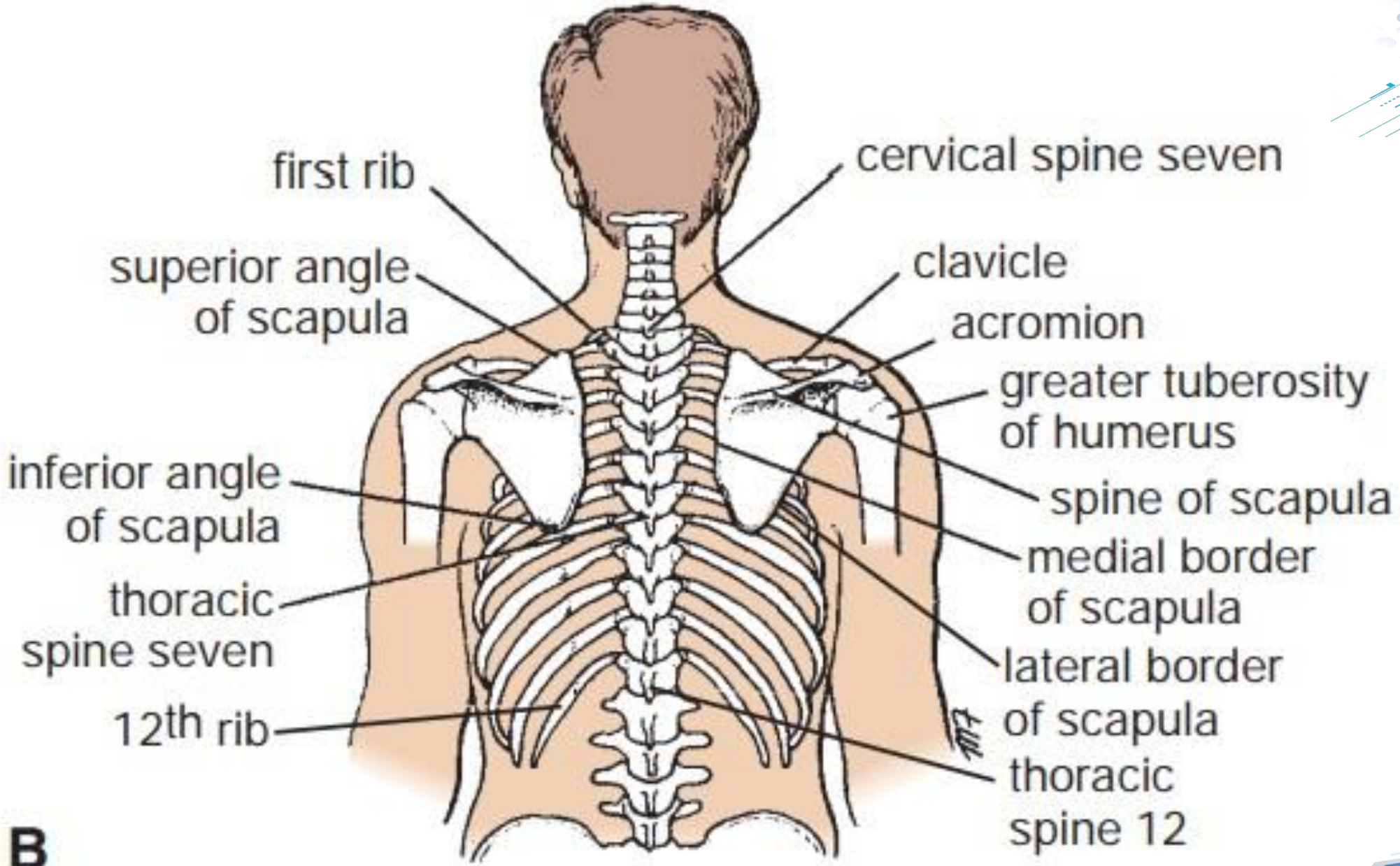
Surface Features Of Anterior Thoracic Wall.



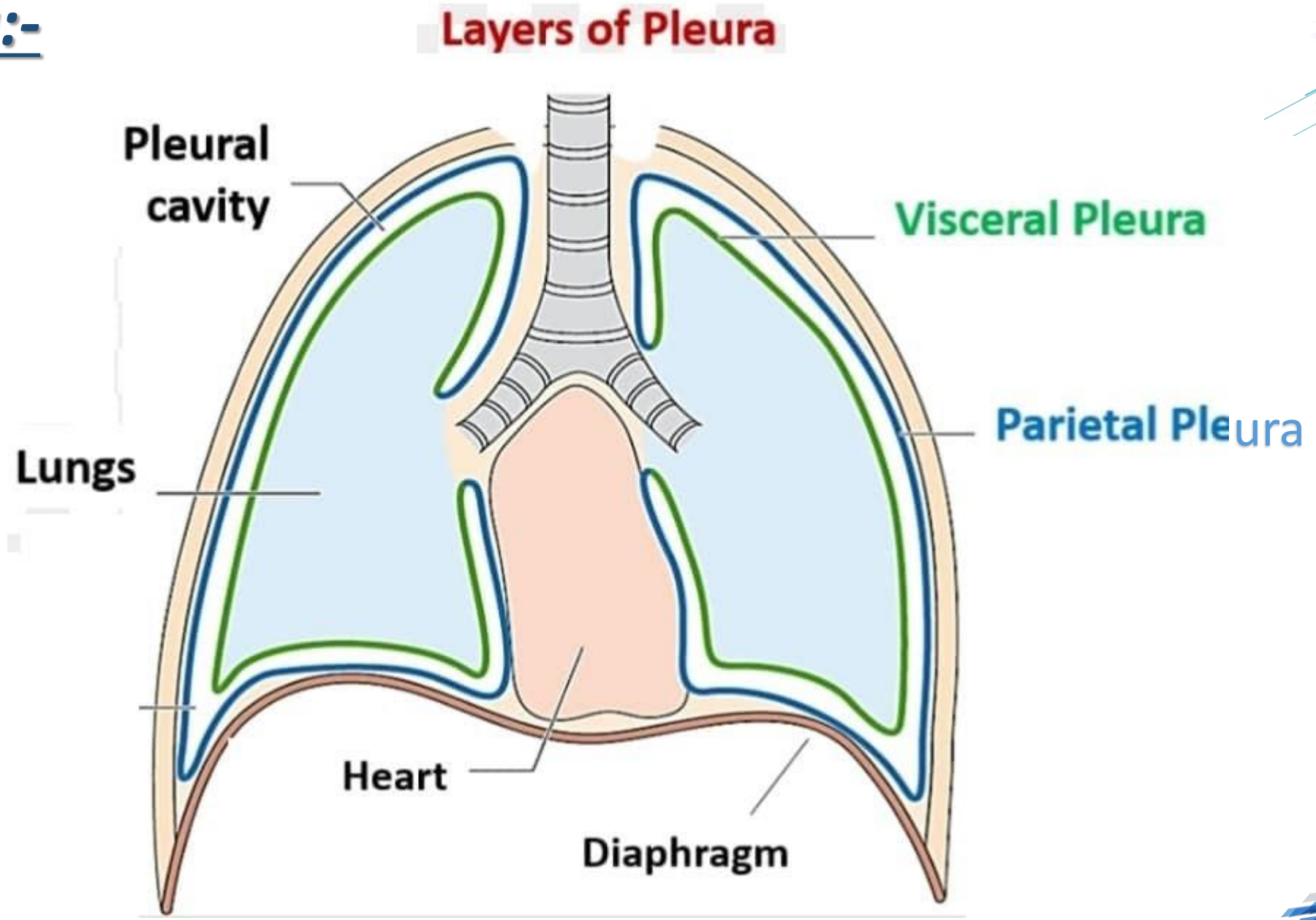
Vertical Lines Of Thoracic Wall

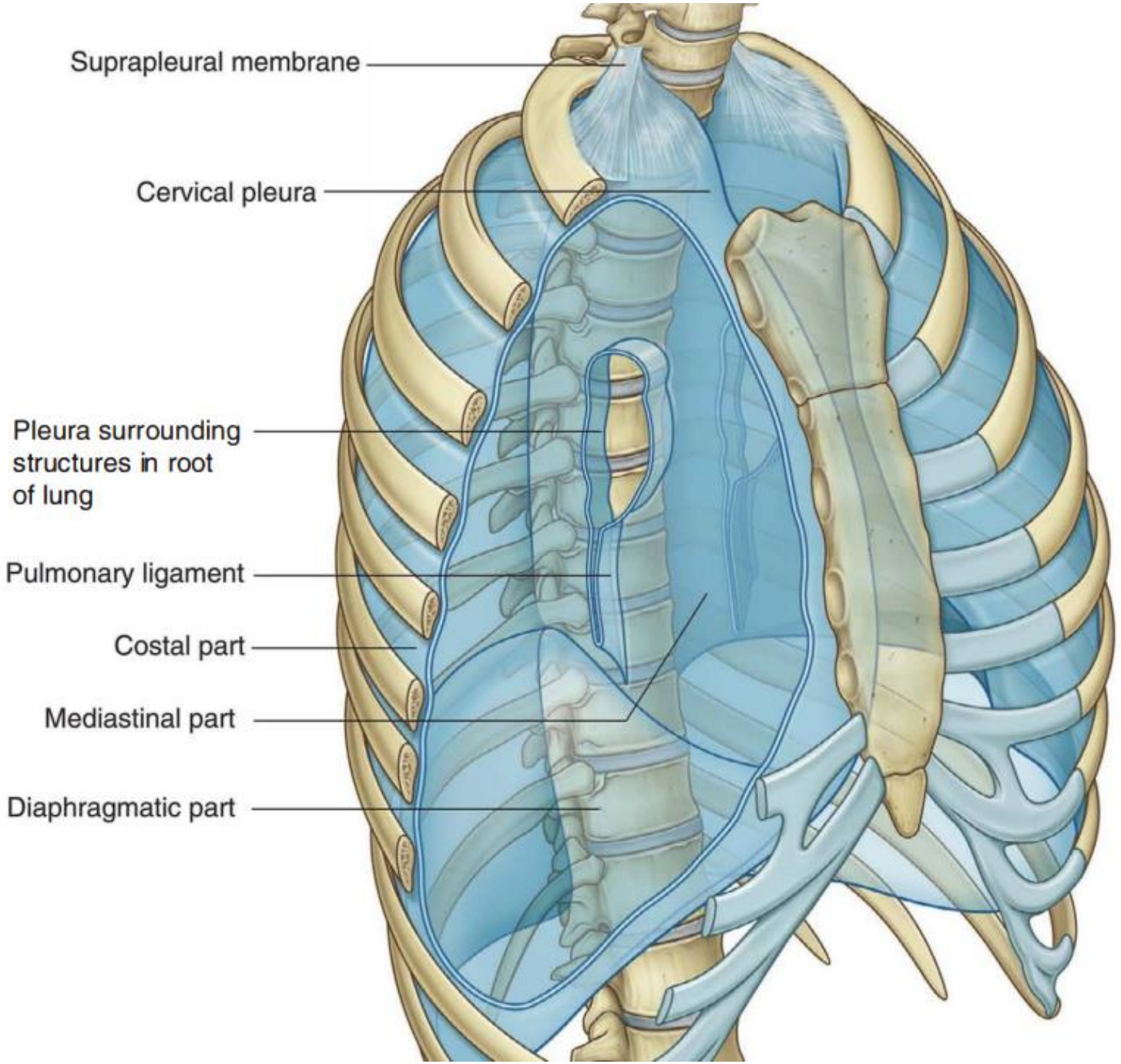


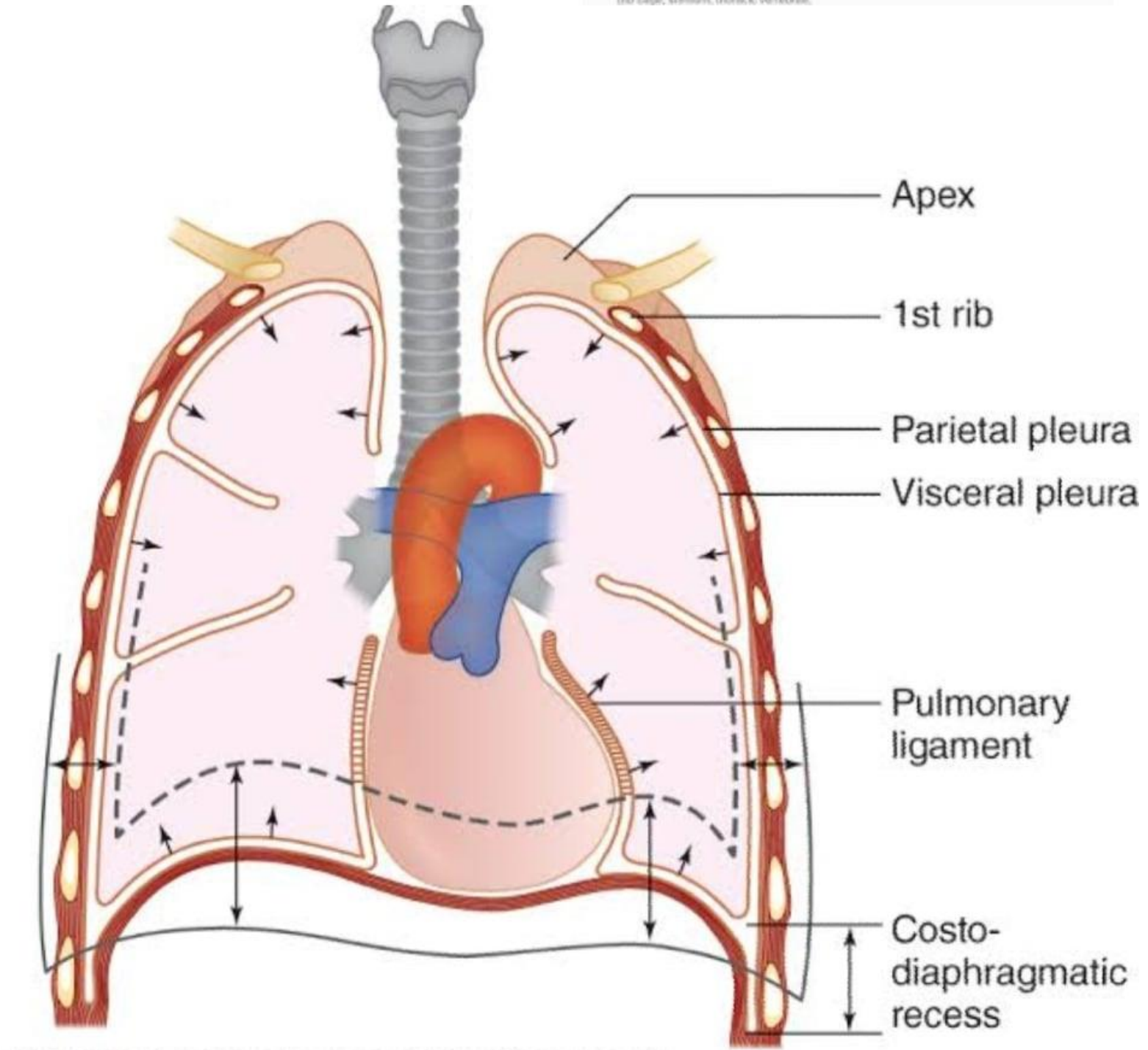

supraclavicular fossa
clavicle
infraclavicular fossa
subcostal angle
costal margin
suprasternal notch
sternal angle
xiphisternal joint
anterior axillary line
midclavicular line
midsternal line
A

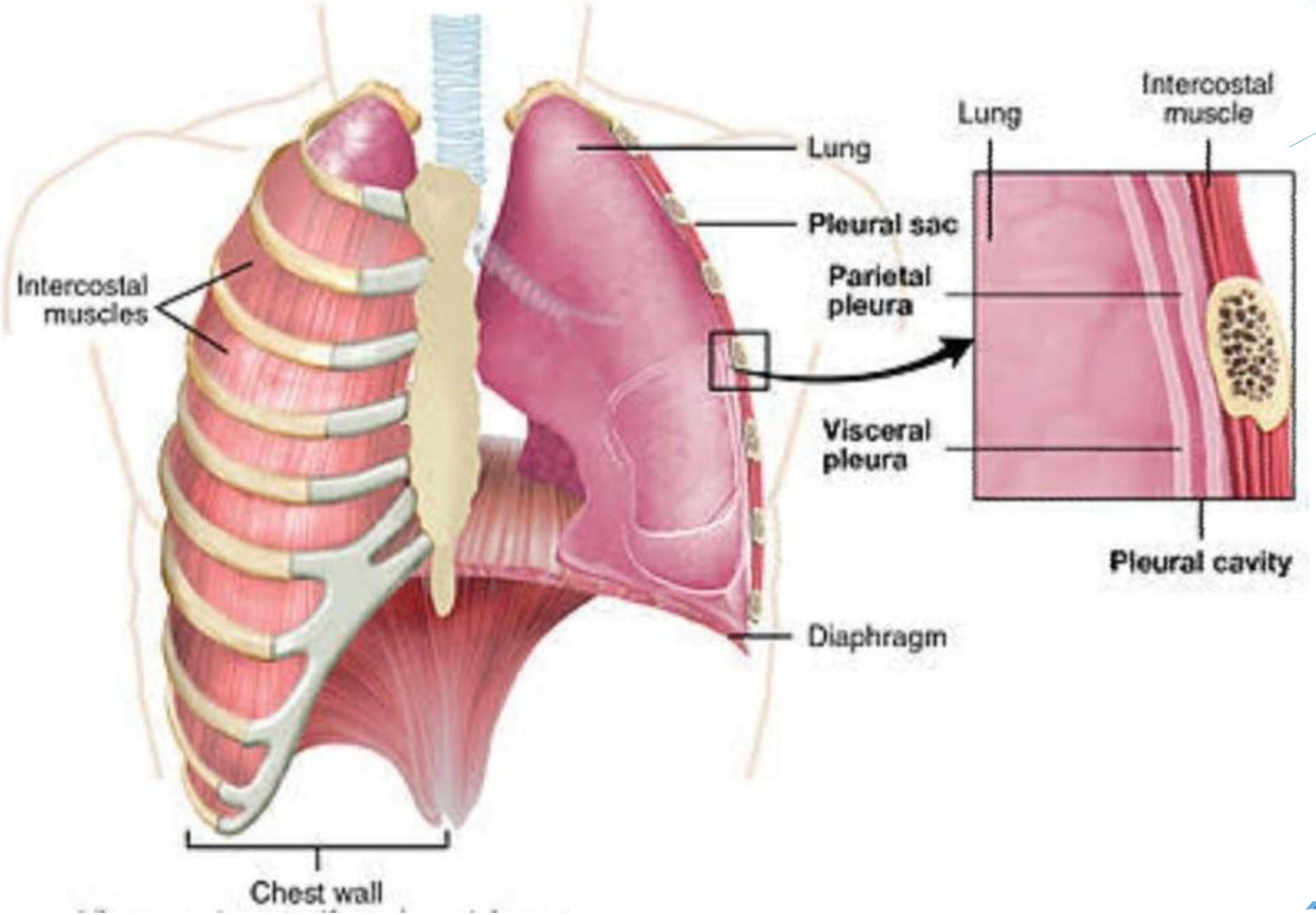

first rib
superior angle of scapula
inferior angle of scapula
thoracic spine seven
12th rib
cervical spine seven
clavicle
acromion
greater tuberosity of humerus
spine of scapula
medial border of scapula
lateral border of scapula
thoracic spine 12
B

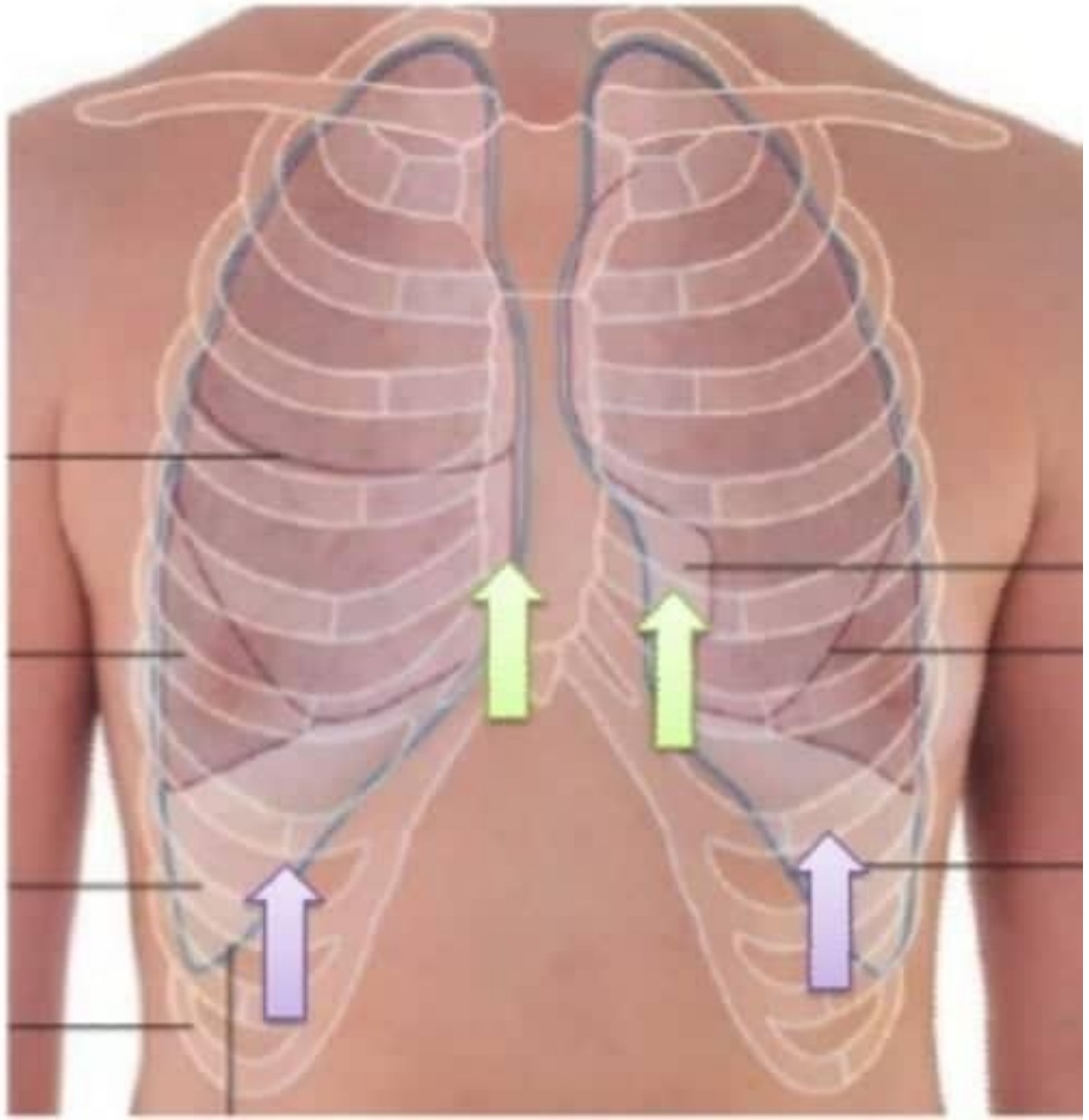
Pleura:-


Layers of Pleura
Pleural cavity
Visceral Pleura
Parietal Pleura
Lungs
Heart
Diaphragm

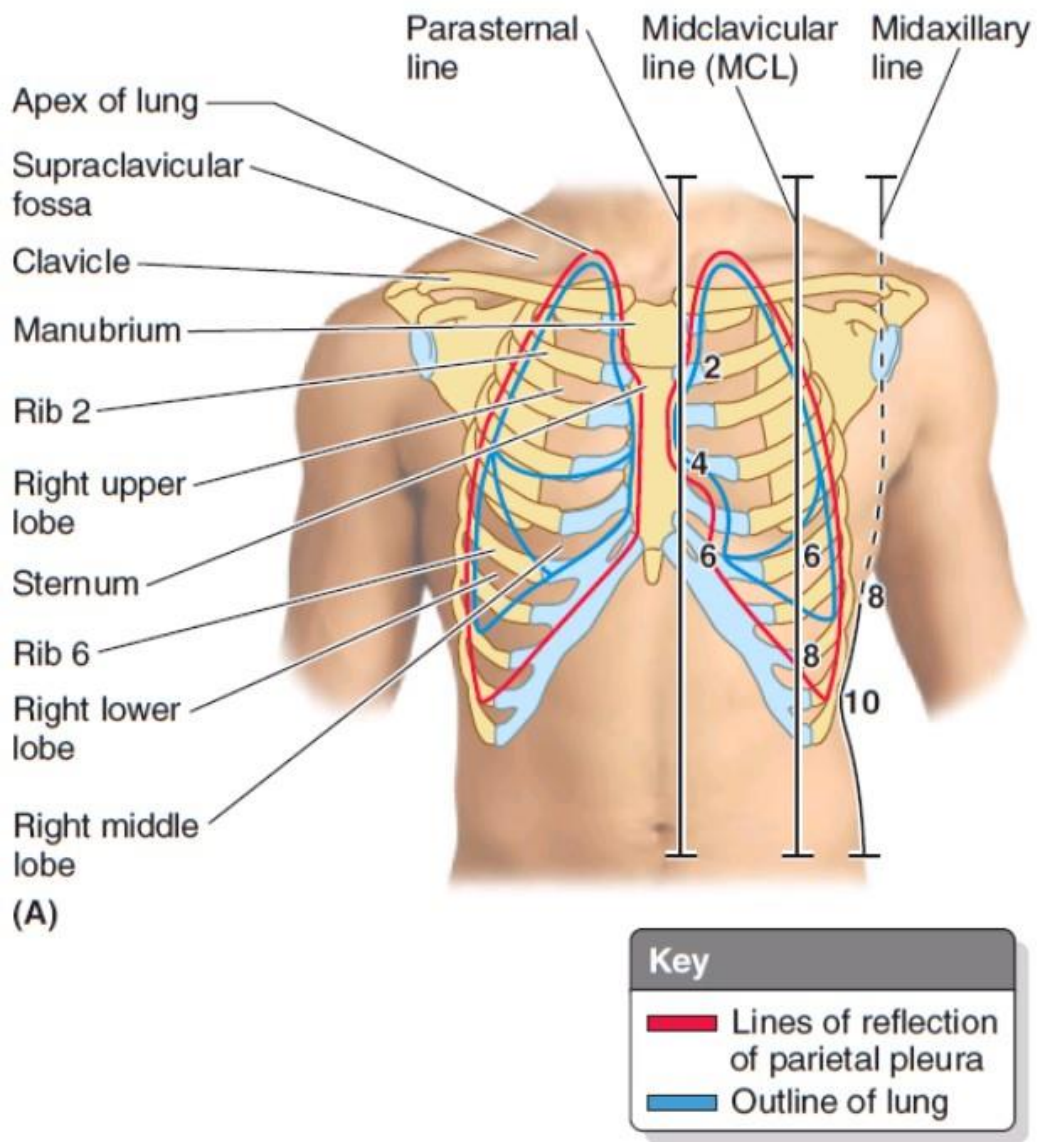

Suprapleural membrane
Cervical pleura
Pleura surrounding structures in root of lung
Pulmonary ligament
Costal part
Mediastinal part
Diaphragmatic part

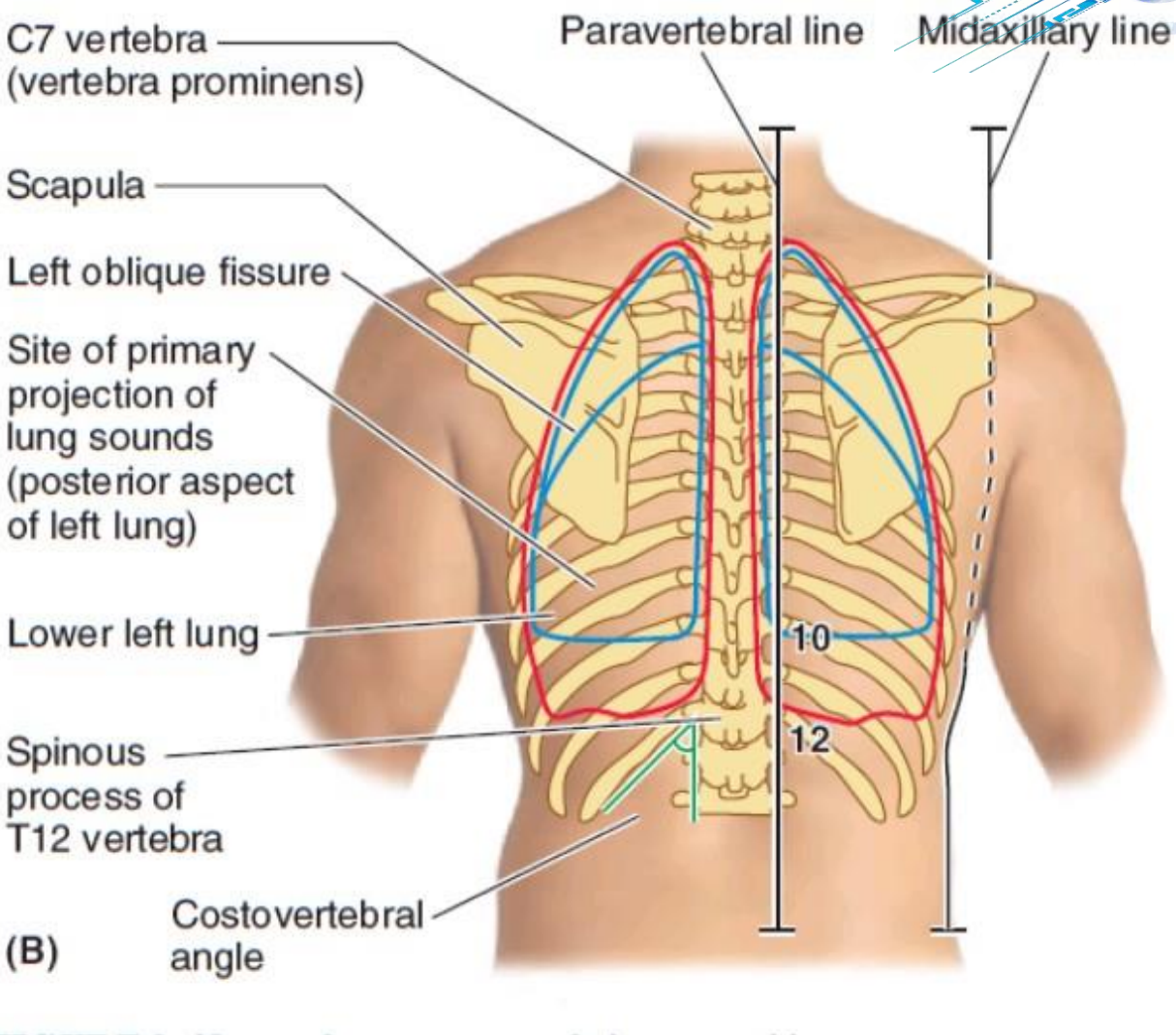

Apex
1st rib
Parietal pleura
Visceral pleura
Pulmonary ligament
Costo-diaphragmatic recess


Lung
Pleural sac
Parietal pleura
Visceral pleura
Diaphragm
Intercostal muscles
Chest wall
Lung
Intercostal muscle
Pleural cavity



Inspiration And Expiration Shape:-


Parasternal line
Midclavicular line (MCL)
Midaxillary line
Apex of lung
Supraclavicular fossa
Clavicle
Manubrium
Rib 2
Right upper lobe
Sternum
Rib 6
Right lower lobe
Right middle lobe
2
4
6
6
8
8
10
(A)
Key
Lines of reflection of parietal pleura
Outline of lung


C7 vertebra (vertebra prominens)
Paravertebral line
Midaxillary line
Scapula
Left oblique fissure
Site of primary projection of lung sounds (posterior aspect of left lung)
Lower left lung
Spinous process of T12 vertebra
Costovertebral angle
10
12
(B)

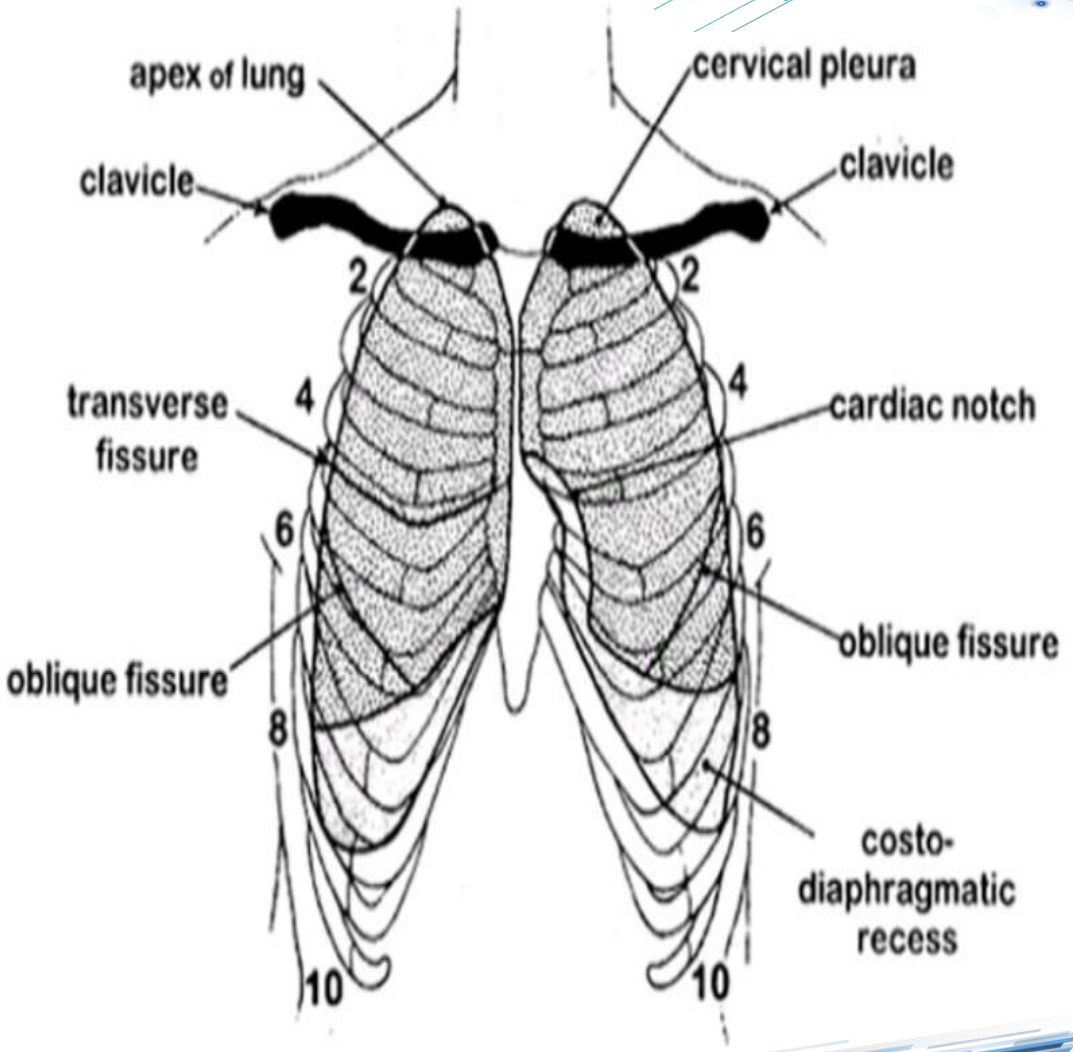
Surface Anatomy Of Lung

- **Apex :**

  Curved line , convex upwards
  from sternoclavicular joint to the point
  of junction between middle 1/3 and
  lateral 2/3 of clavicle

- **Anterior border :**

  Right lung :
  begins behind the sternoclavicular joint
  run downwards and medially
  Till reach the Xiphisternal joint



- Left lung :

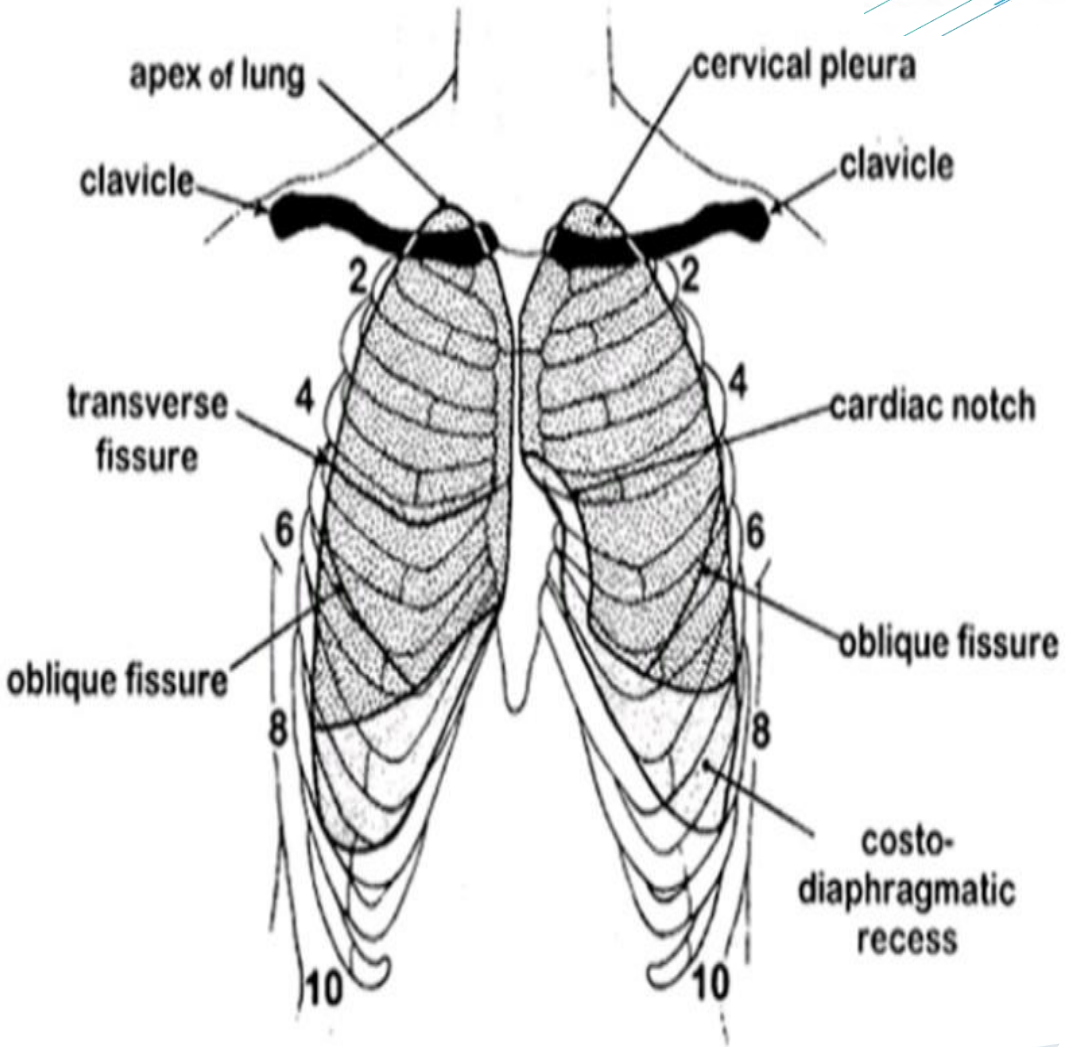
  Similar course

  But at the level of 4th Costal cartilage

  it deviates laterally to form cardiac notch

  Then turns downwards till reach the

  level of Xiphisternal joint



- Lower border :

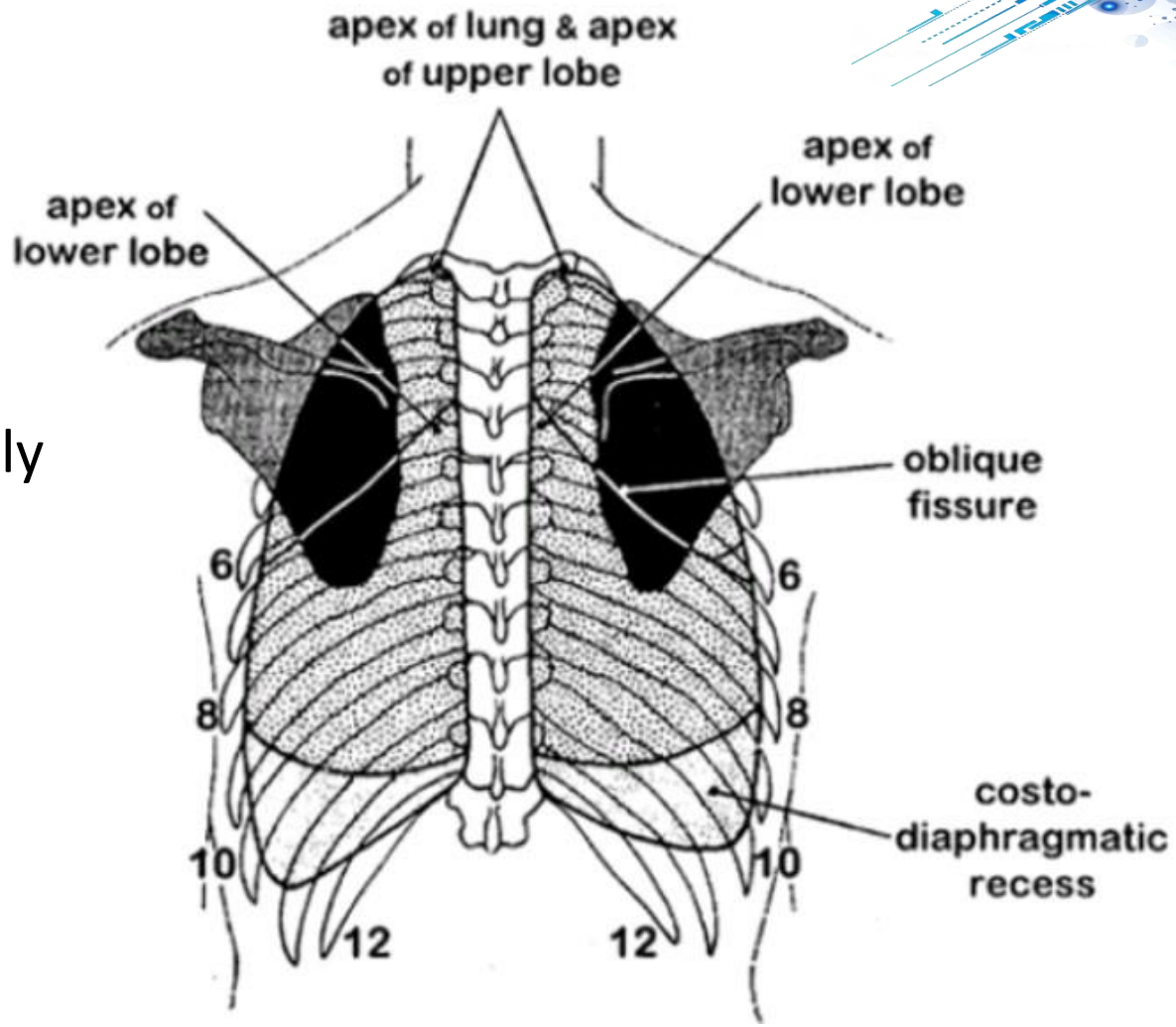
  Curving line

  Cross the 6th rib in midclavicular line

  and 8th rib in midaxillary line

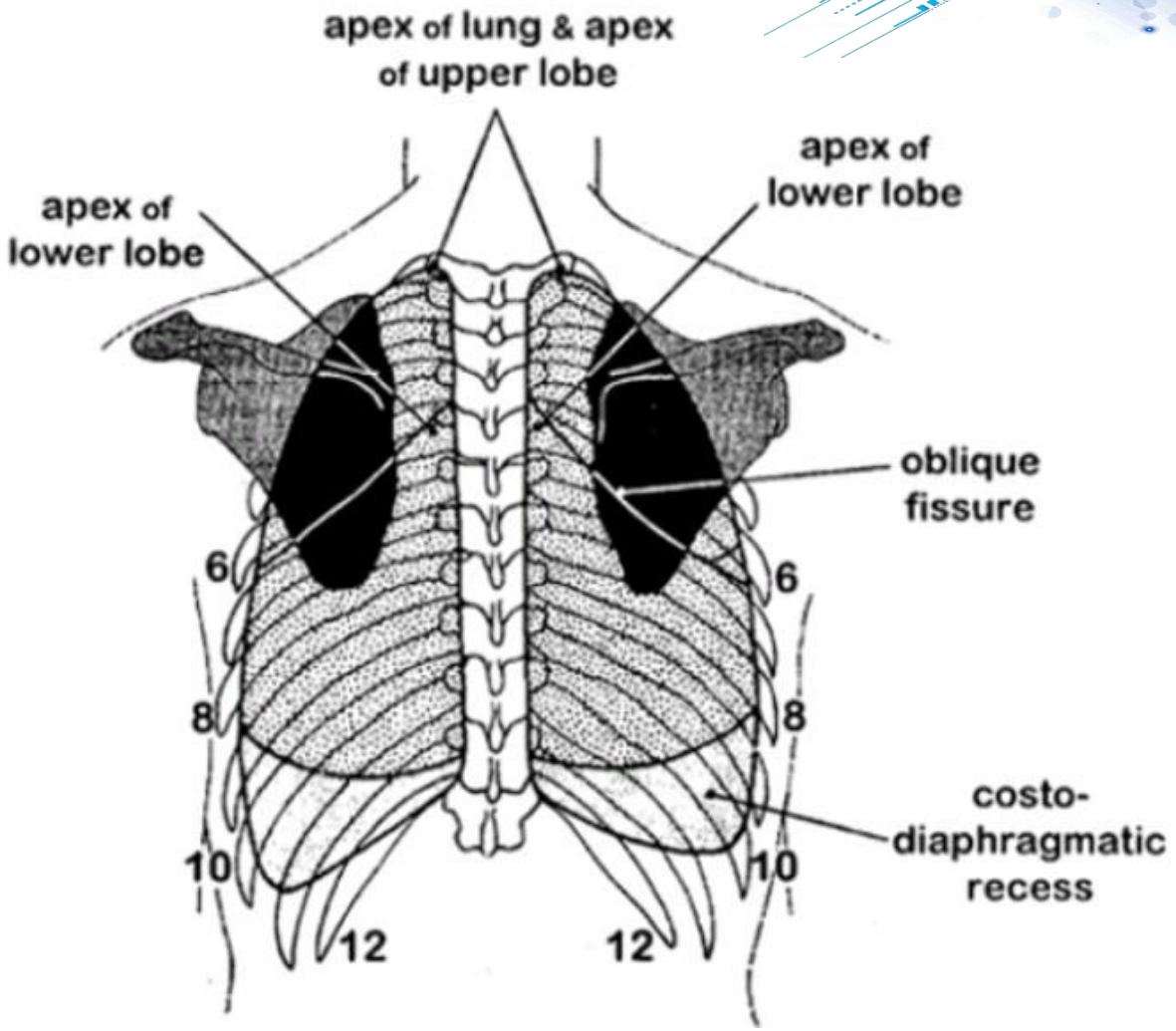
  Reaches the vertebral column posteriorly

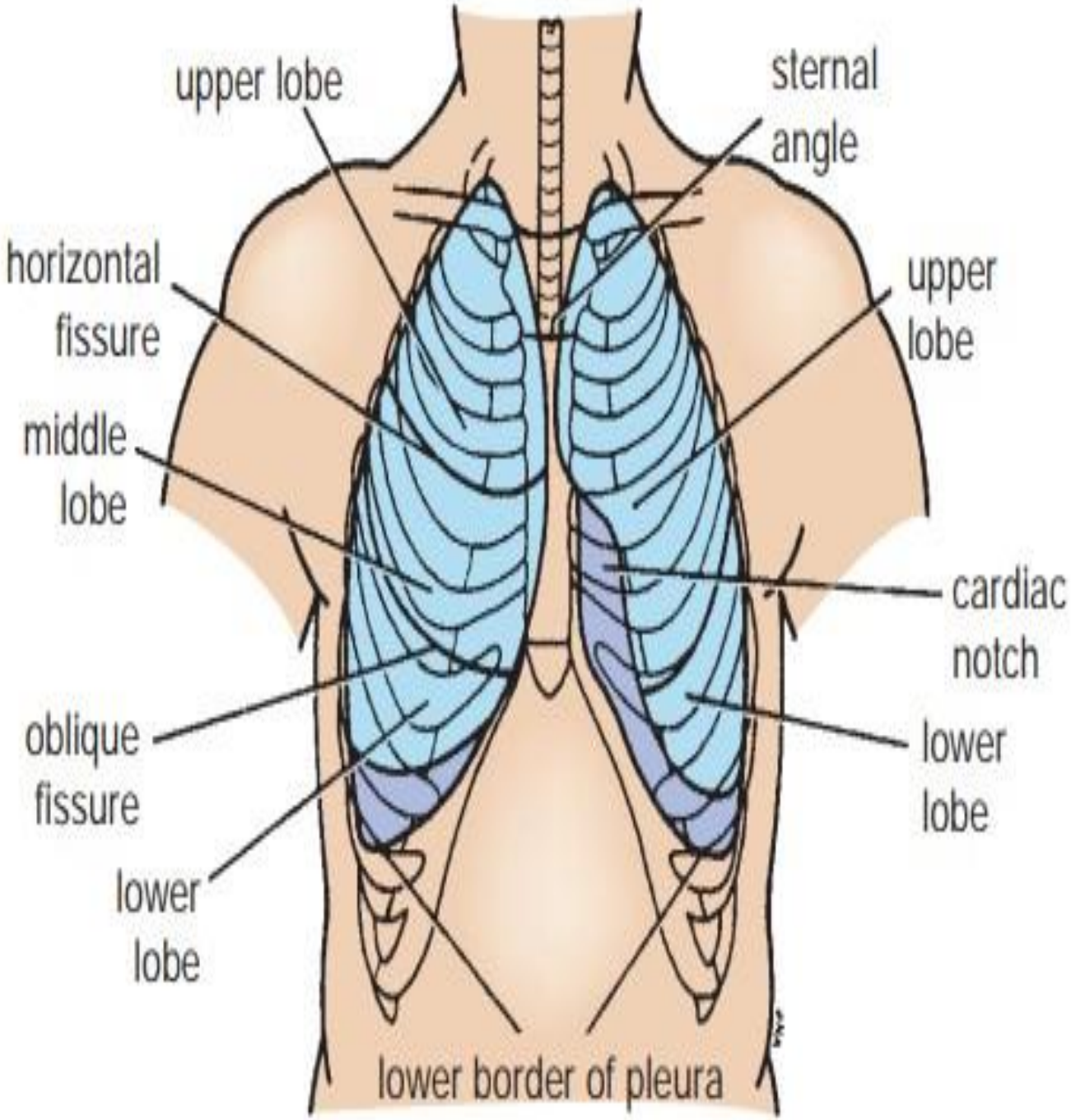
  (spinous process of T10)



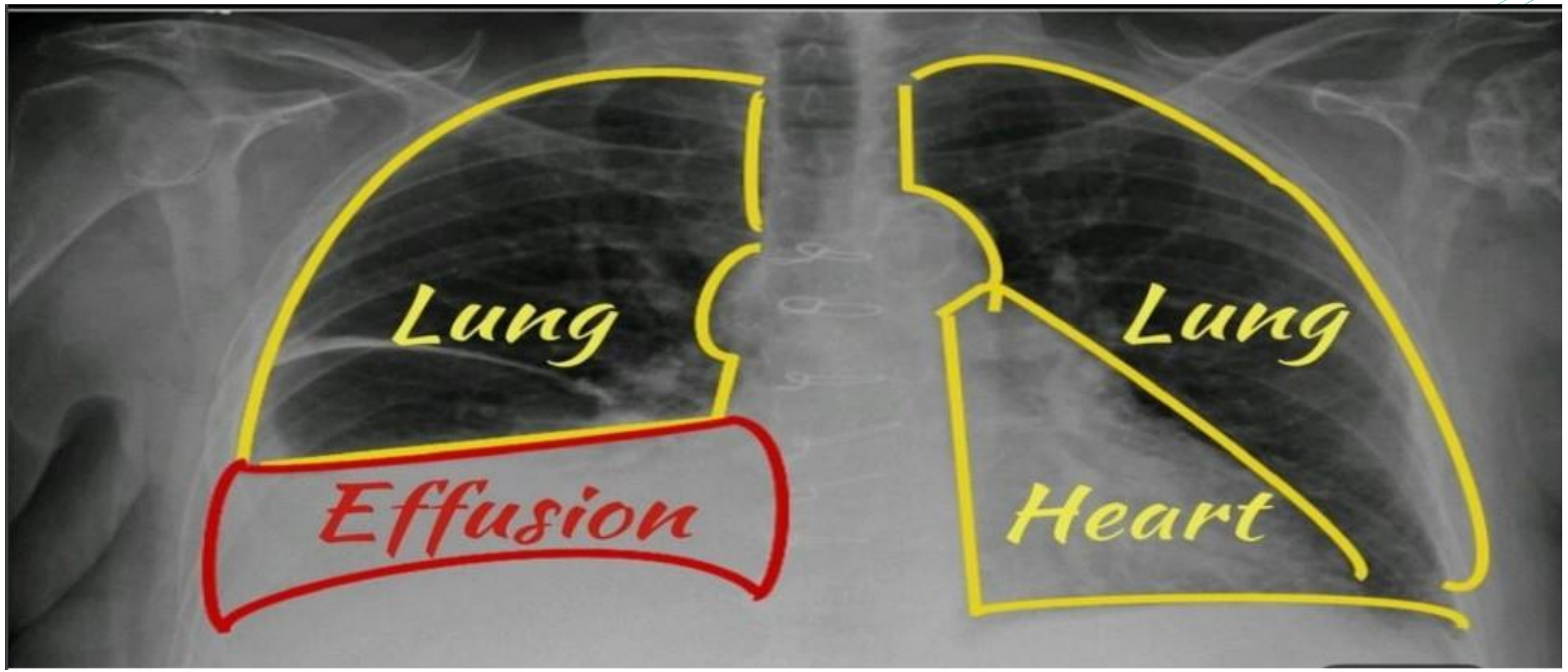
- Posterior border :

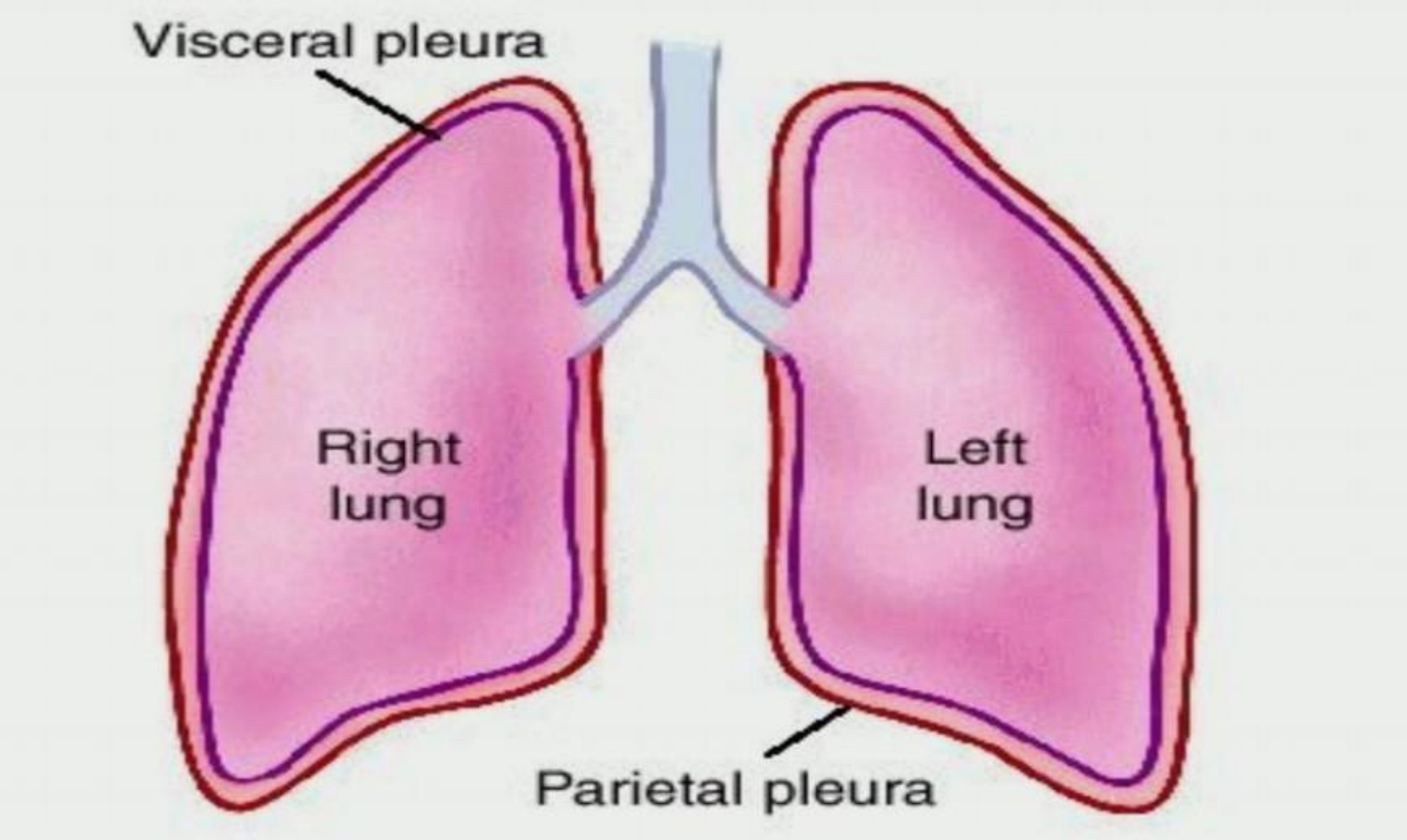
  Extend downwards
  from spinous process of C7
  to the level of 10th thoracic vertebra




upper lobe
sternal angle
horizontal fissure
upper lobe
middle lobe
cardiac notch
oblique fissure
lower lobe
lower lobe
lower border of pleura

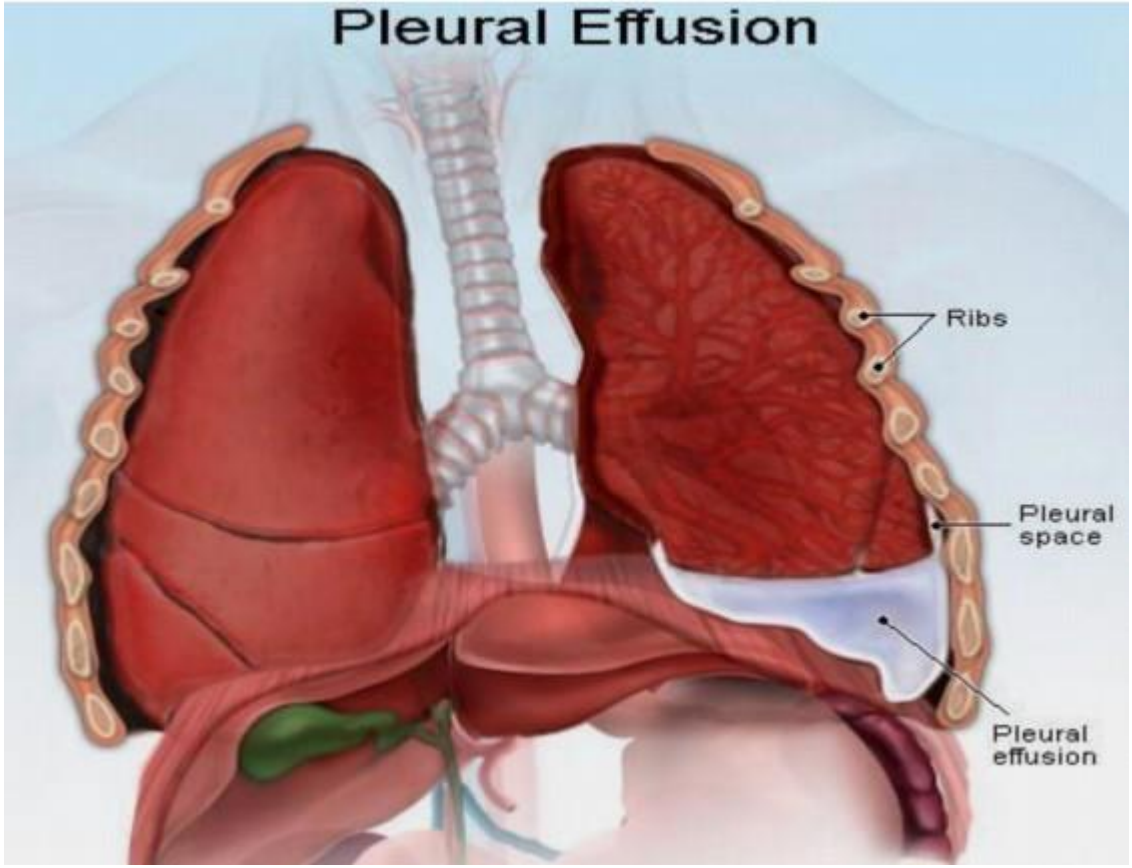
Pleural Effusion:-




Visceral pleura
Right lung
Left lung
Parietal pleura

What Is Pleural Effusion?

Accumulation of serous fluid in the pleural cavity.



❖ Causes

Congestive heart failure

Liver or kidney diseases

Infections :Pneumonia, Tuberculosis

Autoimmune conditions

Pulmonary embolism

❖ Symptoms

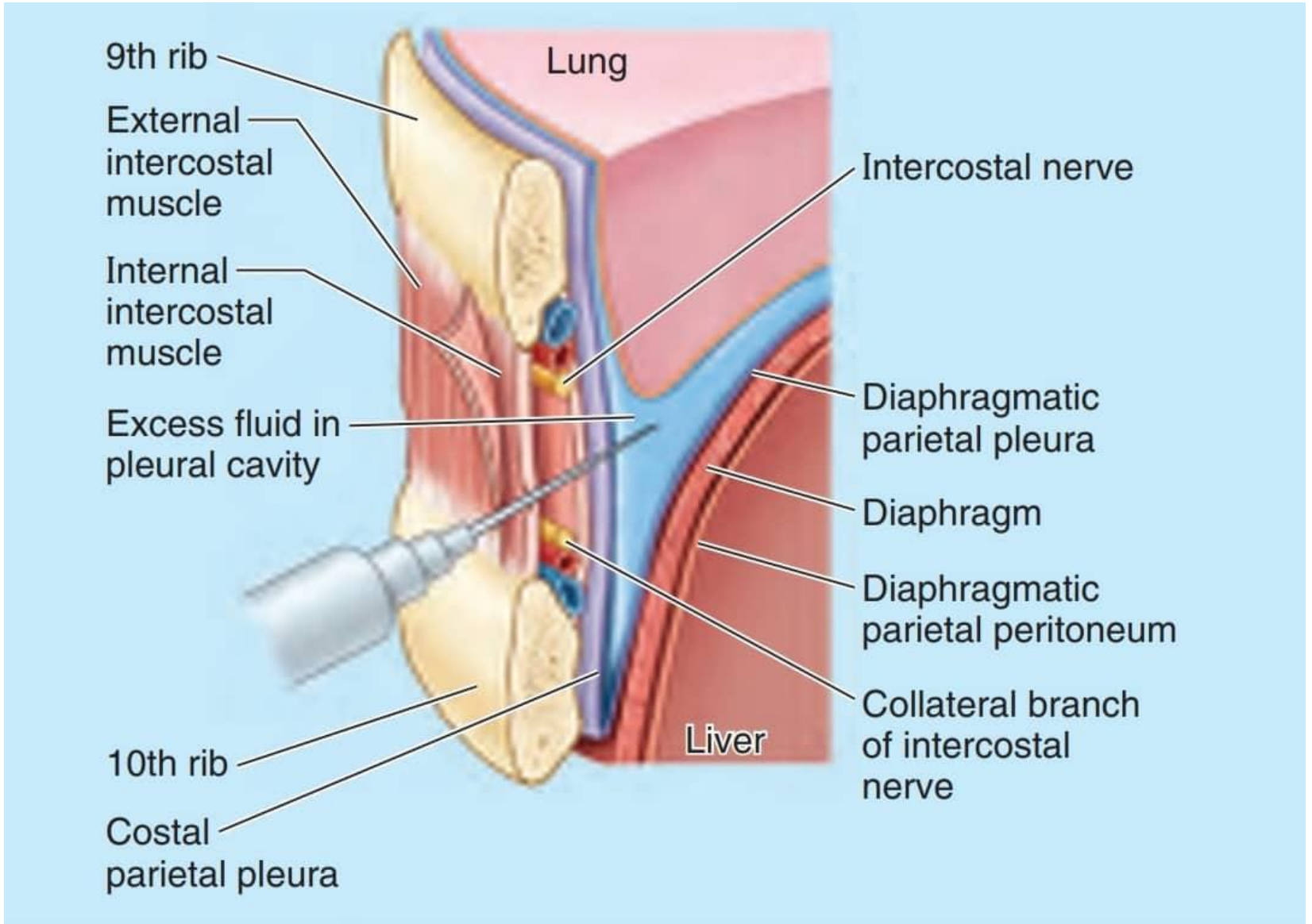
Chest Pain

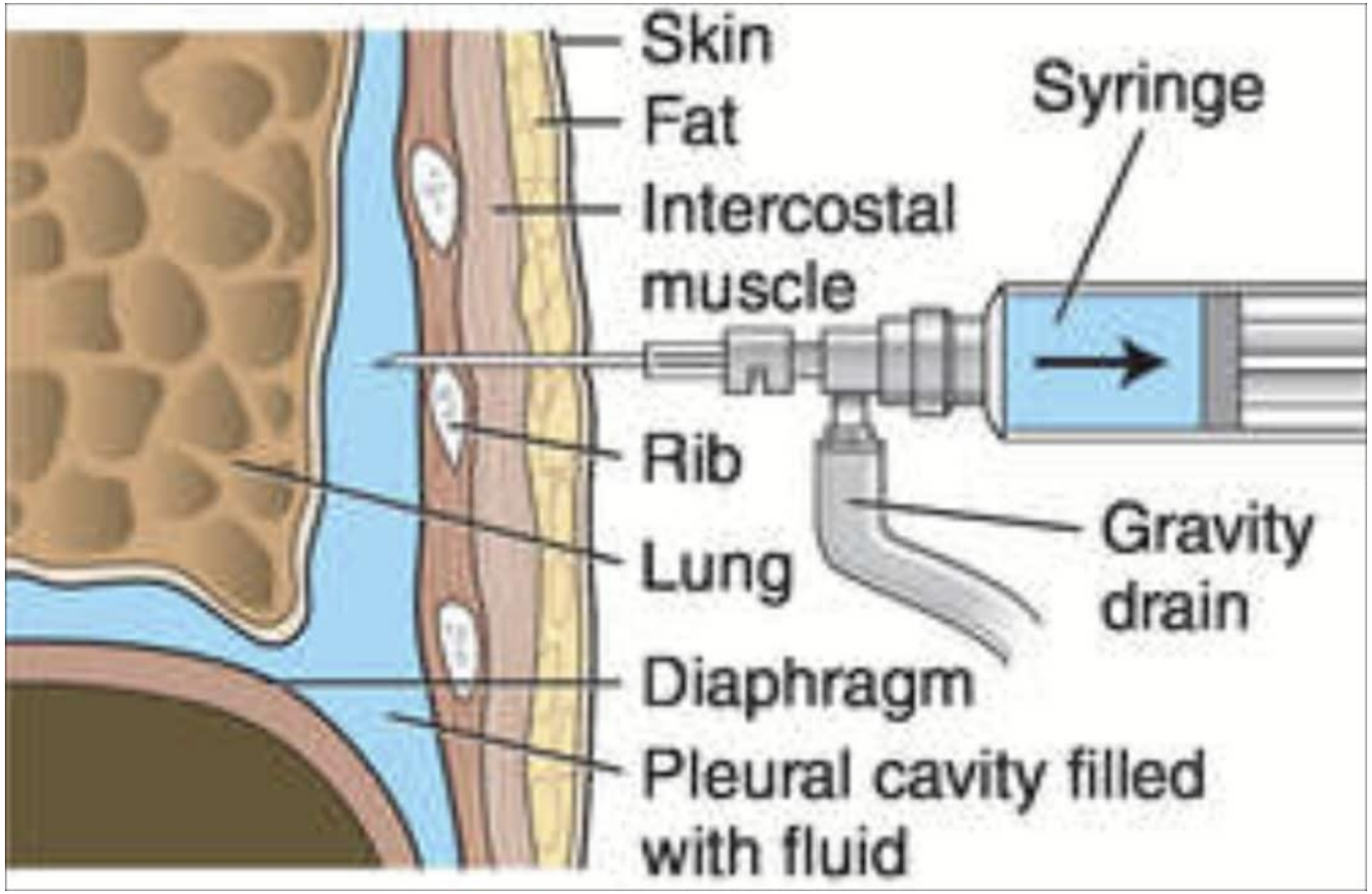
Dry Cough

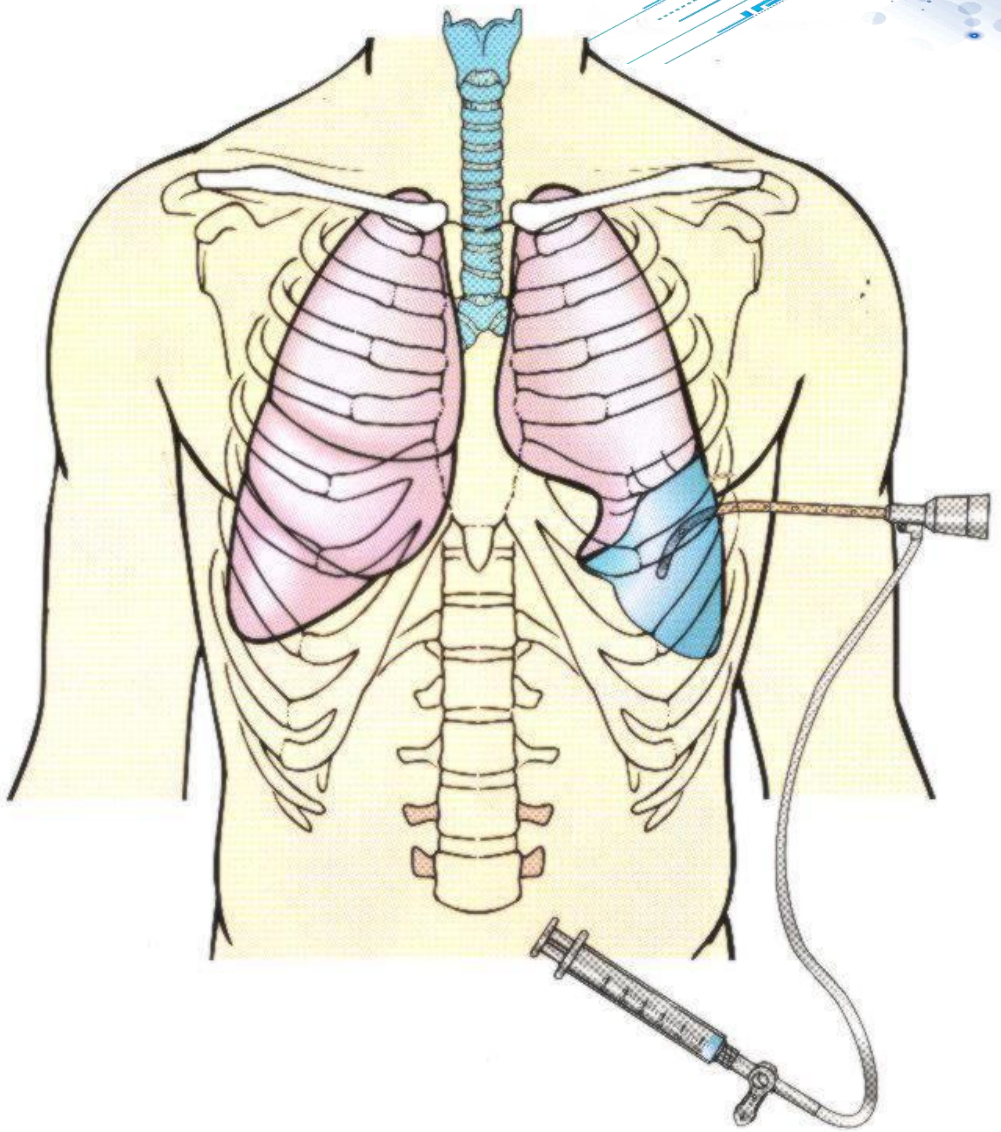
Fever

Shortness of breath

Difficulty Breathing When Lying Down


9th rib
External intercostal muscle
Internal intercostal muscle
Excess fluid in pleural cavity
10th rib
Costal parietal pleura
Lung
Liver
Intercostal nerve
Diaphragmatic parietal pleura
Diaphragm
Diaphragmatic parietal peritoneum
Collateral branch of intercostal nerve


Skin
Fat
Intercostal muscle
Syringe
Rib
Lung
Gravity drain
Diaphragm
Pleural cavity filled with fluid

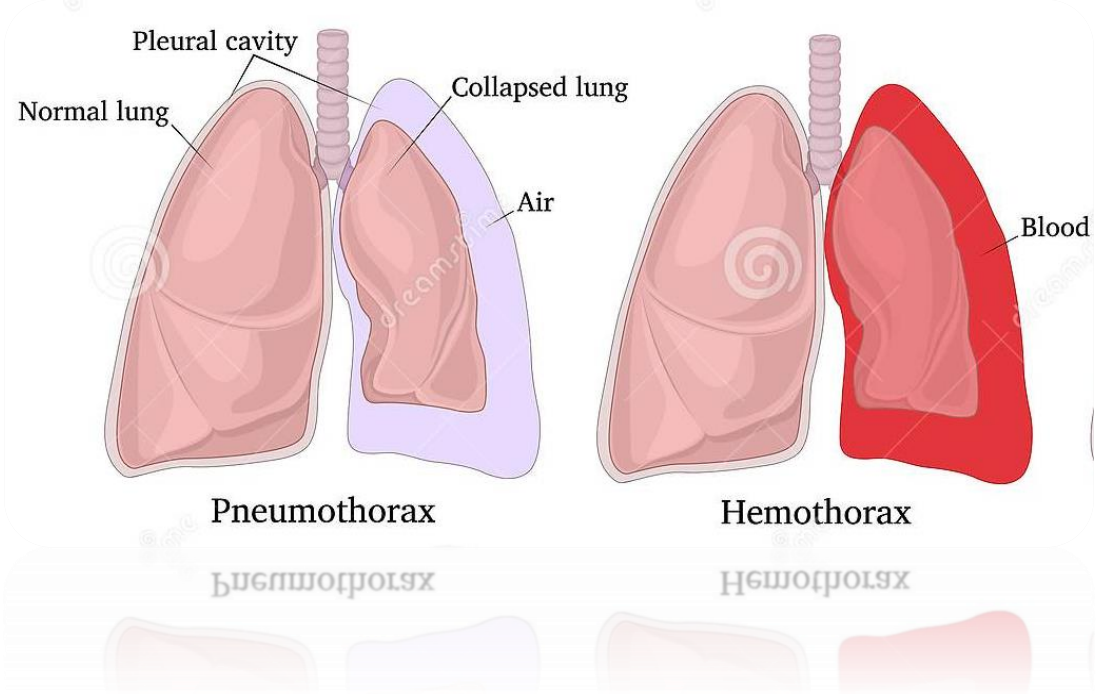


Pneumothorax

Entry of air into the pleural cavity

Resulting from :

- Penetrating wound of the parietal pleura from a bullet , for example
- Rupture of pulmonary lesion into the pleural cavity
- Fractured ribs

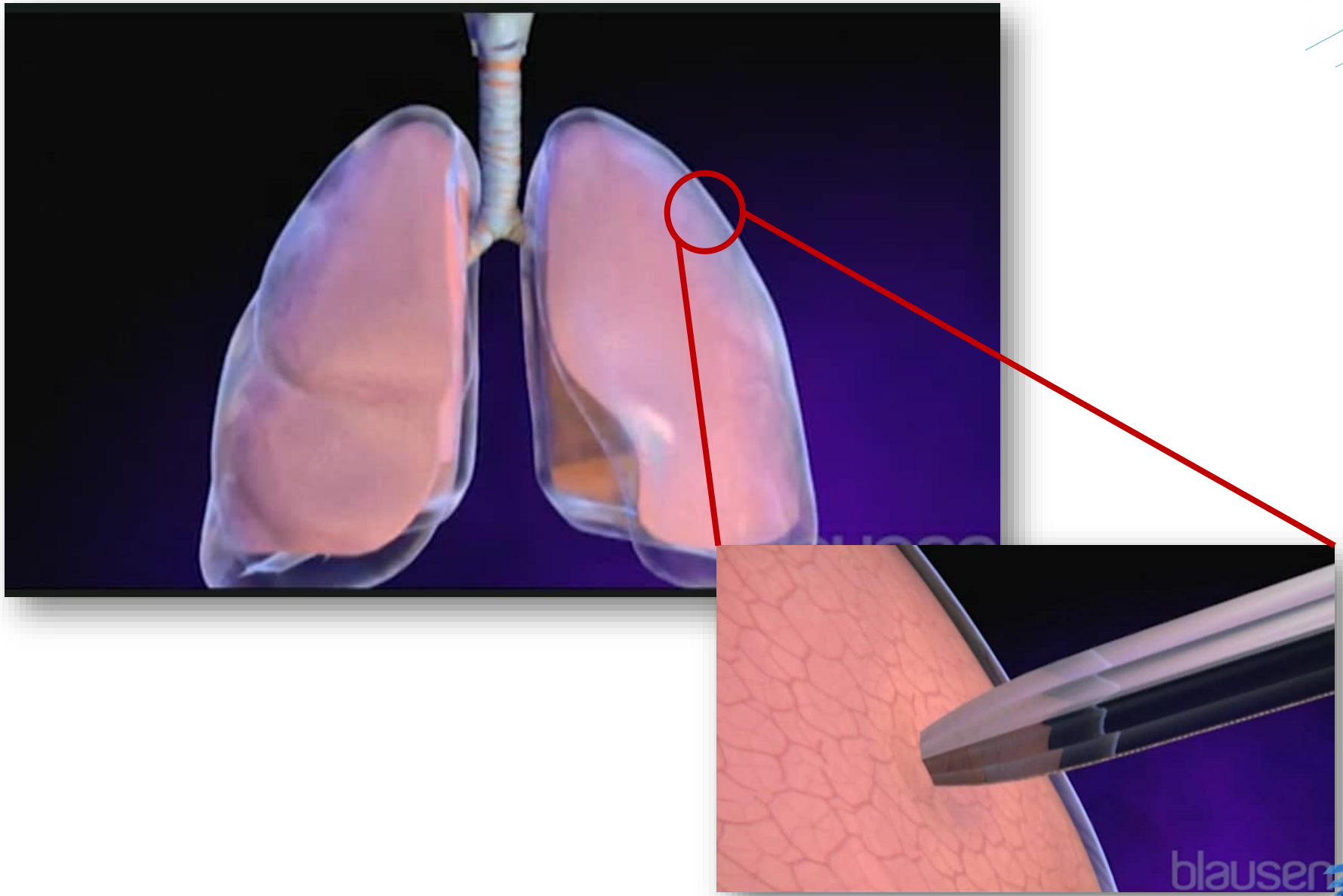


Hemothorax

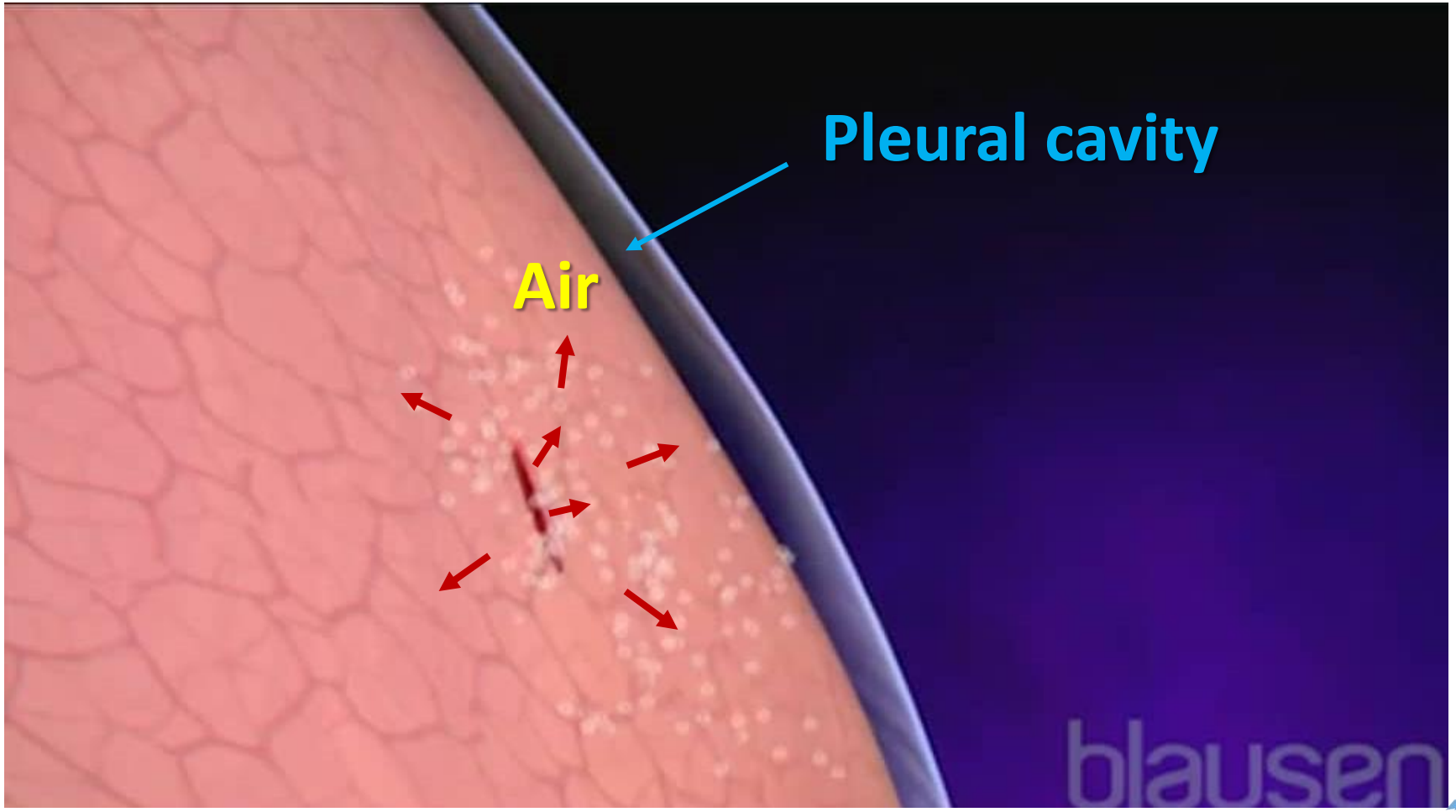
Entry of blood into the pleural cavity

Resulting from :

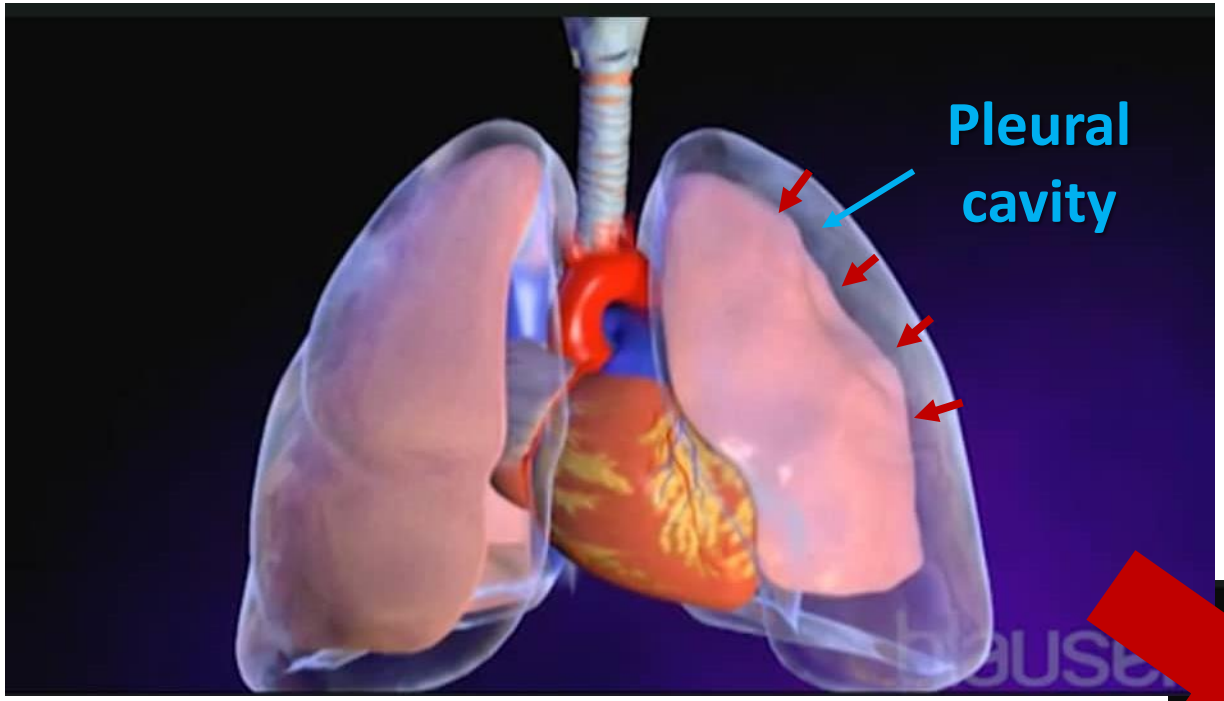
- More commonly , from injury to a major intercostal or internal thoracic vessel
- Chest wound

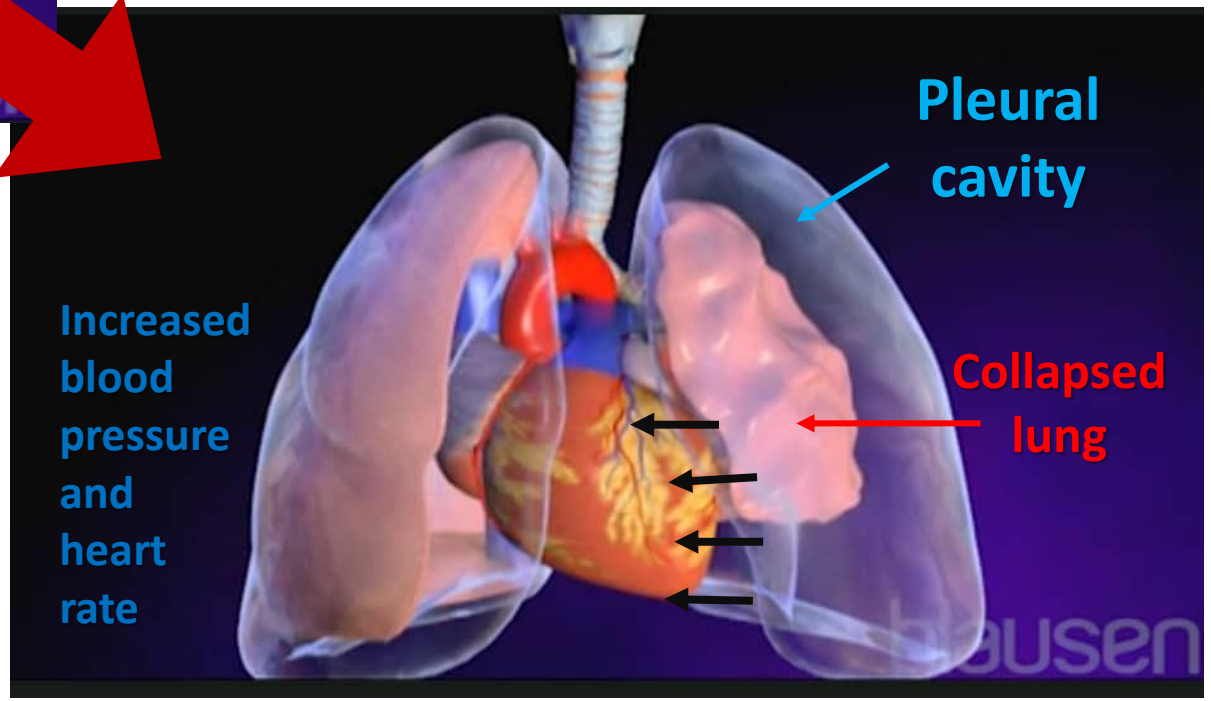


Pneumothorax



Pneumothorax





Hydropneumothorax: presence of air & fluid in the pleural cavity

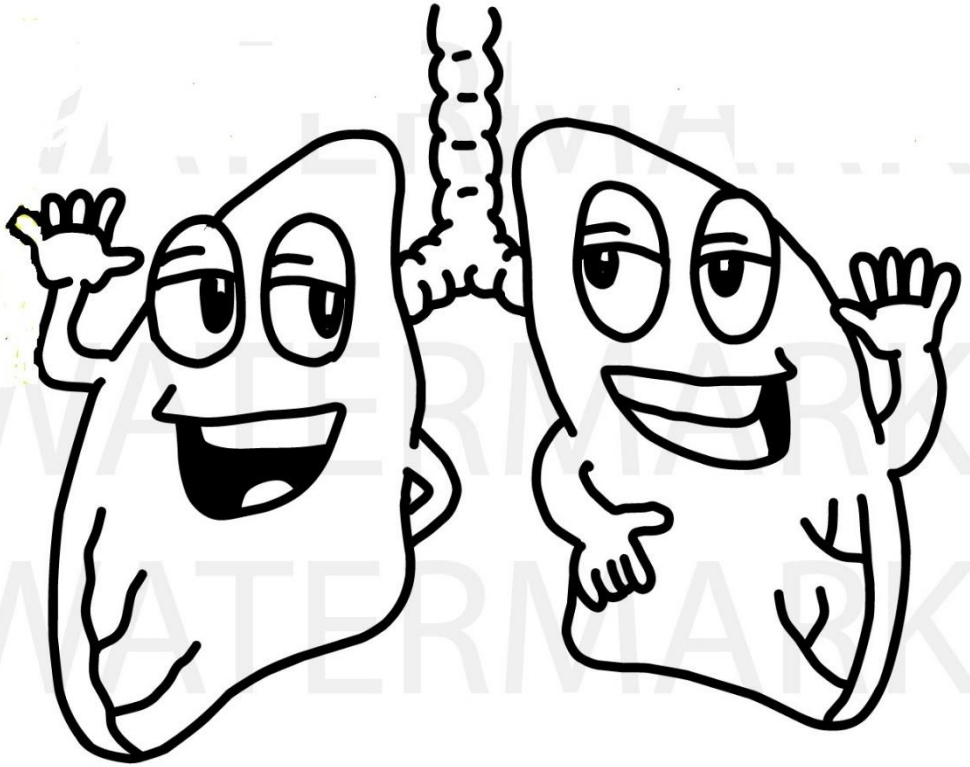
Hemopneumothorax: presence of air & blood in the pleural cavity

Pyopneumothorax: presence of air & pus in the pleural cavity

Empyema: collection of pus in the pleural cavity (without air)

CTV

قال العماد الأصفهانى

"إنى رأيتُ أنه لا يكتب إنسان كتاباً فى يومه إلا قال فى غده لو غُير هذا لكان أحسن، ولو زِيْدَ كذا لكان يُستحسنُ، ولو قُدم هذا لكان أفضل، ولو تُرك هذا لكان أجمل، وهذا من أعظم العبر، وهو دليلٌ على إستيلاء النقص على جُملة البشر."

Thank You